

## § 12.36

(1) Due consideration of all relevant reports on the safety of the development made by or written under the direction of Federal or state agencies, submitted under Commission regulations, or made by other consultants;

(2) Physical field inspection of the project works and review and assessment of all relevant data concerning:

- (i) Settlement;
- (ii) Movement;
- (iii) Erosion;
- (iv) Seepage;
- (v) Leakage;
- (vi) Cracking;
- (vii) Deterioration;
- (viii) Seismicity;
- (ix) Internal stress and hydrostatic pressures in project structures or their foundations or abutments;
- (x) The functioning of foundation drains and relief wells;
- (xi) The stability of critical slopes adjacent to a reservoir or project works; and
- (xii) Regional and site geological conditions; and

(3) Specific evaluation of:

- (i) The adequacy of spillways;
- (ii) The effects of overtopping of non-overflow structures;
- (iii) The structural adequacy and stability of structures under all credible loading conditions;
- (iv) The relevant hydrological data accumulated since the project was constructed or last inspected under this subpart;
- (v) The history of the performance of the project works through analysis of data from monitoring instruments; and
- (vi) The quality and adequacy of maintenance, surveillance, and methods of project operations for the protection of public safety.

(b) *Evaluation of spillway adequacy.* The adequacy of any spillway must be evaluated by considering hazard potential which would result from failure of the project works during flood flows.

(1) If structural failure would present a hazard to human life or cause significant property damage, the independent consultant must evaluate the ability of project works to withstand the loading or overtopping which may occur from a flood up to the probable maximum flood or the capacity of spillways to prevent the reservoir from rising to an

## 18 CFR Ch. I (4–1–10 Edition)

elevation that would endanger the project works.

(2) If structural failure would not present a hazard to human life or cause significant property damage, spillway adequacy may be evaluated by means of a design flood of lesser magnitude than the probable maximum flood, if the report of the independent consultant pursuant to §12.37 provides a detailed explanation of the bases for the finding that structural failure would not present a hazard to human life or cause significant property damage.

### § 12.36 Emergency corrective measures.

If, in the course of an inspection, an independent consultant discovers any condition for which emergency corrective measures are advisable, the independent consultant must immediately notify the licensee and the licensee must report that condition to the Regional Engineer pursuant to §12.10(a) of this part.

### § 12.37 Report of the independent consultant.

(a) *General requirement.* Following inspection of a project development as required under this subpart, the independent consultant must prepare a report and the licensee must file three copies of that report with the Regional Engineer. The report must conform to the provisions of this section and be satisfactory to the authorized Commission representative.

(b) *General information in the initial report.* (1) The initial report filed under this subpart for any project development must contain:

- (i) A description of the project development;
- (ii) A map of the region indicating the location of the project development;
- (iii) Plans, elevations, and sections of the principal project works;
- (iv) A summary of the design assumptions, design analyses, spillway design flood, and the factors of safety used to evaluate the structural adequacy and stability of the project works; and
- (v) A summary of the geological conditions that may affect the safety of the project works.